UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		10/826,882	RASANEN ET AL.
		Examiner	Art Unit	
		DANIEL LAI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 August 2009</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,5-12,16-24 and 26-39</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,5-10,12,16-24,26 and 28-39</u> is/are rejected.

7)☒ Claim(s) <u>11 and 27</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 4 August 2009 has been entered.

Response to Amendment

Response to Arguments

Applicant's arguments filed 26 June 2009 have been fully considered but they are not

persuasive. In response to the argument that WO'881 does not teach "said new second

communication unit being associated with the same third communication unit with which said

former second communication unit was associated", Examiner respectfully disagrees because

WO'881 discloses the GSM MSC node and the UMTS MSC node is implemented within one

entity or network node (p. 14, lines 22-24), and hence WO'881 discloses "said new second

communication unit being associated with the same third communication unit with which said

former second communication unit was associated".

Applicant's remaining arguments have been considered but are moot in view of the new

ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12, 16, 21, 26, 30 and 33-37 are rejected under 35 U.S.C. 102(b) as being

anticipated by WO 01/65881, hereinafter WO'881.

Regarding claims 12 and 33-35, WO'881 discloses a method, a system and an apparatus

for negotiation or re-negotiation of at least one parameter for use in the operation of a protocol

that controls data transmission between first communication units and third communication units

via second communication units (p. 11, line 15-p. 12, line 24), where said protocol is operated by

protocol entities in said first and third communication units (p. 11, lines 15-27, where WO'881

discusses protocol entities), where a first communication unit is associated with a second

communication unit and a second communication unit is associated with a third communication

unit (p. 8, lines 12-31, where WO'881 discusses different network entities), where there exists

second communication units of at least a first and second type that require different choices of

said parameter (p. 8, lines 12-22, p. 11, line 29-p. 12, line 9). WO'881 discloses transmitting

when an existing association of a first communication unit with a former second communication

unit that of said first type is changed to an association of said first communication unit with a

new second communication of said second type (p. 8, line 24-p. 9, line 8, p. 12, line 11-23), said

new second communication unit being associated with the same third communication unit within

which said former second communication unit was associated (p. 14, lines 22-24, where WO'881

discusses the GSM MSC and the UMTS MSC are implemented as one network node), a

negotiation message containing a value for said parameter from a protocol entity of said third communication unit associated with said new second communication unit to a protocol entity of said first communication unit (p. 13, line 25-p. 14, line 11).

Regarding claims 26, 30, 36 and 37, WO'881 discloses negotiation of parameters for use in the operation of a protocol that controls data transmission between first communication units and third communication units via second communication units (Background of the Invention, where WO'881 discusses standards; Summary of the Invention; p. 13, line 20-23), where said protocol is operated by protocol entities in the first and third communication units (p. 3, line 4-8), where a first communication unit is associated with a second communication unit and the second communication unit is associated with a third communication unit (p. 8, lines 12-31, where WO'881 discusses different network entities), where there exist third communication units of at least a first and second type that require different choices of said parameter (p. 8, lines 12-22, p. 11, line 29-p. 12, line 9). WO'881 discloses transmitting in the case that it is possible that an association of said first communication unit with a second communication unit that is associated with a third communication unit of a first time may be change to an association of said first communication unit with a second communication unit that is associated with a third communication unit of a second type (p. 12, lines 11-23; p. 13, lines 12-30), at least one negotiation message containing a value for said parameter from a protocol entity of said first communication unit to said third communication unit of said first type or from a protocol entity of said third communication unit of said first type to a protocol entity of said first communication unit prior to said change of association (p. 13, line 20-30; p. 12, line 11-23, p. 14, lines 5-11, where WO'881 discusses negotiation and renegotiation and parameters are negotiated before the actual handover procedure).

Regarding claim 16, WO'881 discloses the first communication unit is a mobile station (Fig. 1), the second communication units are Base Transceiver Stations (Fig. 1), and the third communication units are Mobile Switching Centers (Fig. 1).

Regarding claims 17-20, WO'881 further discloses one out of said first and second types of said second communication unit is a base transceiver station that is connected to its associated mobile-services switching center via a lower-delay network, and wherein the other type of said second communication unit is a base transceiver station that is connected to its associated mobile-services switching center via a higher delay network (p. 11, lines 29-p. 12, lines 9, where WO'881 discusses GSM and UMTS networks), wherein said lower delay network is a time division multiplex network (http://www.webopedia.com/TERM/G/GSM.html, which discloses GMS uses TDMA), and wherein said higher-delay network is at least partially based on the internet protocol (according to http://www.webopedia.com/TERM/U/UMTS.html, UMTS is partially based on satellite connection).

Regarding claim 21, WO'881 further discloses the protocol is circuit switched (p. 12, line 11-13).

Regarding claim 22, WO'881 further discloses the protocol is circuit switched and is a radio link protocol (p. 12, line 11-13, according to background of the instant application, data transfer for GSM and UMTS is based on RLP (p. 1, lines 26-31)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness
   or nonobviousness.

This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over

WO'881.

Regarding claims 38 and 39, WO'881 discloses the limitations of claims 12 and 26 as

applied above. WO does not explicitly disclose a computer readable memory in which a

computer program product is loaded and when executed perform the actions of claims 12 and 26.

However, since WO'881 is discussing a cellular system, and more specifically, GSM and UMTS

networks, which would require computer programs to perform network operations. It would have

been obvious to one having ordinary skill in the art at the time of the invention to modify the

method of parameter negotiation as disclosed by WO'881 with a computer readable memory

encoded with executable instructions and when executed perform the method of parameter

negotiation disclosed by WO'881 in order to allow the method to perform with minimal manual

process steps.

Claims 1, 5-8, 28, 29, 31 and 32 are rejected under 35 U.S.C. 103(a) as being

unpatentable over WO'881 in view of 3GPP TS 24.008 version 3.11.0 Release 1998, published

in March, 2002, hereinafter GSM Specification).

Regarding claims 1, 29, 31 and 32 WO'881 discloses a method and a system for

negotiation or re-negotiation of at least one parameter for use in the operation of a protocol that

controls data transmission between first communication units and third communication units via

second communication units (p. 8, lines 12-22, where WO'881 discusses a mobile station, a BTS

and a MSC, p. 12, lines 15-16, where WO'881 discusses mobile station), where said protocol is

operated by protocol entities in said first and third communication units (p. 11, lines 15-27,

where WO'881 discusses protocol entities), where a first communication unit is associated with a

second communication unit and a second communication unit is associated with a third

communication unit (p. 8, lines 12-31; Fig 1, where WO'881 discusses different network

entities), where there exists third communication units of at least a first and second type that

require different choices of said parameter (p. 8, lines 12-22, p. 11, line 29-p. 12, line 9, where

WO'881 discusses UMTS and GSM), said method comprising starting, in case that an existing

association of a first communication unit that was associated with a third communication unit of

said first type is changed to an association of said first communication unit with a new second

communication unit that is associated with a third communication unit of said second type (p. 12,

lines 11-23, where WO'881 discusses handover from UMTS network to GSM network), an

initiative for an exchange of at least one negotiation message containing a value for said

parameter between protocol entities of said first communication unit and protocol entities of

third communication unit of said second type (p. 13, line 25-p. 14, line 11). WO'881 further

discloses the mobile station is allowed to initiate modification of parameters after handover (p.

12, lines 15-16), but does not expressly disclose transmitting from a protocol entity of said first

communication unit, a negotiation message containing a value for said parameter to a protocol

entity of said third communication unit of said second type, and a checking performed by said

first communication unit whether said parameter is required for the operation of said protocol

between said protocol entities of said first communication unit and said third communication unit

of said second type and checking by said first communication unit whether said parameter needs

to be negotiated or re-negotiated. However, in accordance with GSM Specification, a mobile

station can initiate negotiation with network in order to modify QoS parameter (p. 194, section

6.1.3.3) by transmitting a MODIFY request message to network with new parameters (p. 194,

section 6.1.3.3.2). One with ordinary skills in the art would realize such modification messages

would be only be initiated when required for network operation because a mobile station

normally would not initiate request to negotiate for parameters unless necessary to avoid

unnecessary network traffic. It would have been obvious to one having ordinary skill in the art at

the time of the invention to combine the teaching of WO'881 to allow a mobile station to modify

network parameters after handover with the teaching of GSM Specification to allow a mobile

station to initiate parameter negotiation in order to initiate parameter negotiation by a mobile

station to enhance quality of service.

Regarding claim 5, WO'881 further discloses the first CU is a mobile station (Fig. 1), the second CUs are Base Transceiver Stations (Fig. 1), and the third CUs are Mobile Switching Centers (Fig. 1).

Regarding claim 6, WO'881 further discloses the third CU of the first type is a MSC of a mobile network operated according to the UMTS standard (p. 12, line 11-13), and the third CU of the second type is a MSC of a mobile network operated according to the GSM standard (p. 12, line 11-13).

Regarding claims 7 and 8, WO'881 discloses the protocol is circuit switched and is a radio link protocol (p. 12, line 11-13, according to background of the instant application, data transfer for GSM and UMTS is based on RLP (p. 1, lines 26-31), and WO'881 discloses GSM and UMTS (p. 12, lines 11-13), therefore, WO'881 discloses the protocol is a RLP).

Regarding claim 10, WO'881 further discloses checking whether said data transmission between said first communication unit and said third communication unit of said second type is a multi-link transmission (p. 12, lines 25-30, where WO'881 discusses checking for required traffic channels).

Regarding claim 28, WO'881 in view of WO'189 discloses the limitations of claim 1 as applied above. WO'881 does not explicitly disclose a computer readable memory in which a computer program product is loaded and when executed perform the actions of claim 1. However, since WO'881 is discussing a cellular system, and more specifically, GSM and UMTS networks, which would require computer programs to perform network operations. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of parameter negotiation as disclosed by WO'881 with a computer readable memory encoded with executable instructions and when executed perform the method of parameter

negotiation disclosed by WO'881 in order to allow the method to perform with minimal manual

process steps.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO'881 in view

of Applicant's Admitted Prior Art (Admission).

WO'881 discloses the limitations of claim 21 as applied above. WO'881 does not

expressly disclose the parameter defines a value of an acknowledgement timer that guards a

retransmission period after which a re-transmission of a not-acknowledged frame within a

protocol with Automatic repeat request may be started. However, as admitted by Admission, data

transfer in GSM and UMTS are based on RLP (p. 1, lines 26-31), and a control parameter of

RLP protocol, an acknowledge timer T1 is associated with a transmitting RLP entity to indicates

a re-transmission period after which the re-transmission of a not-acknowledged frame may be

started (p. 3, lines 5-8). It would have been obvious to one having ordinary skill in the art at the

time of the invention to modify the parameters for internetworking handover as disclosed by

WO'881 with an acknowledgement timer as disclosed by Admission in order to define a time

period to retransmit a frame that was not correctly received by a receiver and hence lost packet

can be retransmitted to the receiver.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO'881 in view of

3GPP TS 24.022 version 5.1.0 Release 5 (hereinafter TS 24.022).

WO'881 discloses the limitations of claim 21 as applied above. WO'881 fails to disclose the

parameter defines the value of a resequencing timer that guards the difference between the delays of

frames transmitted on different physical links within a multi-link protocol. TS 24.022 discloses a re-

sequencing timer (T4) as a XID parameter (p. 14, Table 1). TS 24.022 further discloses "a multi-link

version frames may be received out of sequence due to different transmission delays. The period of

timer T4 guards the re-sequencing period" (p. 21, 5.5.6). It would have been obvious to one having

ordinary skill in the art at the time of the invention to combine the method of negotiation of system

parameters as disclosed by WO'881 with the re-sequencing timer disclosed by TS 24.022 so that

RLP standard can be applied to the method of negotiation disclosed by WO'881 and defined the

required connection parameters (see WO'881, p. 1, line 13-26, where WO'881 discusses standard

and specification).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO'881 in view of

GSM Specification as applied to claim 7 above, and further in view of 3GPP TS 24.022 version 5.1.0

Release 5 (hereinafter TS 24.022).

WO'881 discloses the limitations of claim 7 as applied above. WO'881 fails to disclose the

parameter defines the value of a resequencing timer that guards the difference between the delays of

frames transmitted on different physical links within a multi-link protocol. TS 24.022 discloses a re-

sequencing timer (T4) as a XID parameter (p. 14, Table 1). TS 24.022 further discloses "a multi-link

version frames may be received out of sequence due to different transmission delays. The period of

timer T4 guards the re-sequencing period" (p. 21, 5.5.6). It would have been obvious to one having

ordinary skill in the art at the time of the invention to combine the method of negotiation of system

parameters as disclosed by WO'881 with the re-sequencing timer disclosed by TS 24.022 so that

RLP standard can be applied to the method of negotiation disclosed by WO'881 and defined the

required connection parameters (see WO'881, p. 1, line 13-26, where WO'881 discusses standard

and specification).

Allowable Subject Matter

Claims 11 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL LAI whose telephone number is (571)270-1208. The examiner can normally be reached on Monday-Thursday 9:00 AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit 2617

/D. L./
Examiner, Art Unit 2617